

ABSTRACT

A semiconductor substrate for a light-emitting diode, heterojunction transistor or the like. Included is a buffer region of an aluminum-containing nitride or the like grown epitaxially on a baseplate of silicon or a silicon compound. A dislocation-refracting region of an indium-containing nitride is grown epitaxially on the buffer region in order to provide a major surface having a multiplicity of protuberances of pyramidal shape capable of refracting the dislocations created in the buffer region. A leveling region of a nitride, not containing indium, is formed on the major surface of the dislocation refracting region in order to provide a major surface of greater levelness than the transition refracting region. The leveling region is reduced in dislocation density owing to the interposition of the dislocation refracting region between buffer region and leveling region.